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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,929	11/14/2003	Gopi Venkatesh	451194-101	4820

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EXAMINER	
VANIK, DAVID L	
ART UNIT	**PAPER NUMBER**
1615	

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/713,929	VENKATESH ET AL.	
	Examiner	Art Unit	
	David L. Vanik	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) 12-22 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

S.D.O

DETAILED ACTION

Receipt is acknowledged of the applicant's Power of Attorney filed on 3/8/2004. Receipt is also acknowledged of the applicant's Information Disclosure Statement filed on 2/2/2004.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-11, drawn to a pharmaceutical dosage form, classified in class 424, subclass 489.

   II. Claims 12-21, drawn to a method of preparing a drug delivery system, classified in class 424, subclass 408.

   III. Claims 22, drawn to a method of providing a patient with an oral dosage form comprising 15-30 mg of cyclobenzaprine once a day, classified in class 424, subclass 401+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process

(MPEP § 806.05(f)). In the instant case, the product as claimed can be formulated by a materially different method. The product can be prepared by the following method: (1) forming a compressed tablet core; (2) coating the tablet core with a barrier coating; (3) coating the barrier coating with an active coating; and (4) coating the active coating with a film coating (See US Patent 5,407,686).

3. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product can be delivered to a patient several times a day.

4. Inventions II and III are unrelated to one another. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, a method of producing a drug delivery system and providing a patient with an oral dosage form have different effects and modes of operation and are thus considered to be unrelated.

5. Searching the inventions of Groups I – III together would impose a search burden on the examiner. In the instant case, the search of a composition and methods of producing and using said composition impose a search burden on the examiner.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for each subset of Groups I – III are not required for one another, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

9. During a telephone conversation with Mark Levy on 6/9/2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-11.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

Claims 1, and 3-5, are objected to because of the following informalities: According to MPEP 608.01, material in parenthesis is only proper when referring to elements in a figure. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/12524 ('524).

'524 disclose once a day oral dosage forms comprising multiple-units: (1) a quick release bead comprising an active agent and (2) a sustained or extended release unit comprising an active agent (abstract; page 33, lines 11-16; page 13, lines 7-22). According to '524, the active agent may be a non-steroid anti-inflammatory agent

(abstract). Agents such as cyclobenzaprine, a well-known antidepressant and muscle relaxant, may also be used in the dosage form advanced by '524 (page 28, line 20). It should be noted that the use of the composition for the treatment of muscle spasms is considered to be a future intended use of the composition and, as such, is not given patentable weight.

The extended release unit of the oral dosage form comprises an active agent-containing core and an extended release coating dispersed over said core (page 31, line 31 – page 32, line 2). The core portion of the bead releases 100% of the active agent within 1 hour (page 32, lines 26-34). In this respect, the core of the extended-release unit can be considered to be immediate-release type. Like the instant application, the outer coating of the extended-release unit can comprise a water insoluble polymer such as an ammonio methacrylate copolymer (page 35, lines 26-29). At 3-20%, the percentage by weight of the coating is also within range of the instant composition (page 36, lines 11-20). Moreover, like the instant composition, the coating may be admixed with various plasticizers and water-soluble polymers such as polyethylene glycol (page 36, lines 25-27 and page 37, line 35).

The drug release profile of the composition advanced by '524 is within the range of the instant claim 1 (page 13, lines 4-23). That is, about 25-45% is released after 2 hours, 40-65% is released after 4 hours, 60-85% is released after 8 hours, and 65-99% is released after 12 hours (page 13, lines 4-23). The dosage form advanced by '524 releases the active agent up to 24 hours, providing relief to a patient during that period of time (page 13, lines 4-23).

It is the examiner's position that, inherently, the composition advanced by '524 provides a maximum blood plasma concentration within the range of about 80% to 125% of about 20 ng/ml of cyclobenzaprine HCL and an AUC_{0-168} within the range of about 80% to 125% of about 740ng hr/mL and a T_{max} within the range of 80% to 125% of about 7 hours following oral administration of a single 30mg capsule. Since the essential elements of the '524 composition are identical to the instant compositions (that is, an extended release capsule comprising cyclobenzaprine and a coating comprising an insoluble polymer wherein the release rate is about 25-45% after 2 hours, 40-65% after 4 hours, 60-85% after 8 hours, and 65-99% after 12 hours), the composition would inherently have the same physiochemical properties as the compositions set forth in the instant application. As such, it is the examiner's position that the composition advanced by '524 anticipates the compositions enumerated in the instant claim set.

The claims are therefore anticipated by WO 99/12524 ('524).

Claims 1, 2, 6-9, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,839,177 ('177).

'177 disclose a controlled drug release system comprising the following: (1) a deposit core comprising an active substance and (2) a support platform coating applied to said deposit core (abstract). It is the examiner's position that the deposit core of the composition advanced by '177 is an immediate-release type. According to '177, the support platform or coating consists of a polymeric material that is insoluble in aqueous

liquids (abstract and Figure 1). Materials suitable for preparing the support platform include celluloses, such as ethyl cellulose, and acrylates, such as cellulose acetate-propionate and methacrylates (column 3, lines 3-12 and column 8, lines 57-62). Plasticizers, such as castor oil, and water-soluble polymers, such as hydroxypropylcellulose, can also be added to the support platform (column 8, lines 57-62 and column 2, lines 44-58). The active agent employed in the deposit core can be diazepam, a well-known muscle relaxant (column 8, line 23). It should be noted that the use of the composition for the treatment of muscle spasms is considered to be a future intended use of the composition and, as such, is not given patentable weight.

The extended-release composition advanced by '177 has a release rate of 33% after 2 hours and 62% after 4 hours (column 9, lines 8-16). This rate of release falls within the range of the instant claim 1. It is the examiner's position that, inherently, the composition advanced by '177 provides a release of 60-85% after 8 hours and 75-85% after 12 hours. Since the essential elements of the '177 composition are identical to the instant compositions (that is, an extended release capsule comprising a muscle relaxant, diazepam, coated with an insoluble polymer), the composition would inherently have the same physiochemical properties as the compositions set forth in the instant application. As such, it is the examiner's position that the composition advanced by '177 anticipates the compositions enumerated in the instant claim set.

The claims are therefore anticipated by US Patent 4,839,177 ('177).

Claims 1, 6, 8, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,407,686 ('686).

'686 disclose a sustained or extended release tablet comprising the following: (1) a compressed tablet core comprising an active agent, (2) a barrier coating over the core, (3) an active coating over the barrier coating, and (4) a film coating over the active coating (abstract). The active agent can be a muscle relaxant (column 2, line 21). Since the naked tablet core is unregulated by a barrier or coating, it is the examiner's position that it is an immediate-release type. Like the instant application, the composition advanced by '686 is extended or controlled release and a water insoluble polymer coating is dispersed on the tablet core (column 3, lines 21-41). As evidenced by '177, ethyl cellulose is a water insoluble polymer material (See column 3, line 10 of '177). Hydroxypropylmethylcellulose, a water-soluble polymer, may also be used in the barrier coating advanced by '686 (column 3, lines 28-29).

The drug release profile of the composition advanced by '686 is within the range of the instant claim 1 (column 2, lines 32-38 and claim 5). That is, about 13-33% is released after 2 hours, 40-65% is released after 4 hours, 60-85% is released after 8 hours, and 75-85% is released after 12 hours (column 2, lines 32-38 and claim 5).

The claims are therefore anticipated by US Patent 5,407,686 ('686).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,407,686 ('686) in view of WO 99/30671 ('671).

The teachings of '686 are enumerated above. '686 does not teach cyclobenzaprine hydrochloride as a muscle relaxant.

'671 teach an oral delivery vehicle comprising an active agent (abstract). According to '671, the active agent can comprise a muscle relaxant, specifically cyclobenzaprine hydrochloride (page 18, lines 8-11). Because, as confirmed by '671, cyclobenzaprine hydrochloride is an effective muscle relaxant, one of ordinary skill in the art would have been motivated to add cyclobenzaprine hydrochloride to the composition proposed by '686. Based on the teachings of '671, there is a reasonable

expectation that the addition of cyclobenzaprine hydrochloride to the composition of '686 would result in an effective muscle relaxant-based composition. As such, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add cyclobenzaprine hydrochloride to the composition proposed by '686 in view of the teachings of cyclobenzaprine hydrochloride as an effective muscle relaxant by '671.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Vanik whose telephone number is (571) 272-3104. The examiner can normally be reached on Monday-Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carlos Azpuru, can be reached at (571) 272-0588. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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7/13/05

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